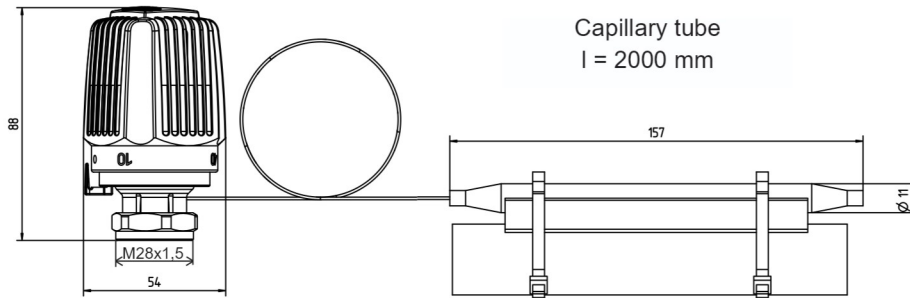


HERZ-Thermostat

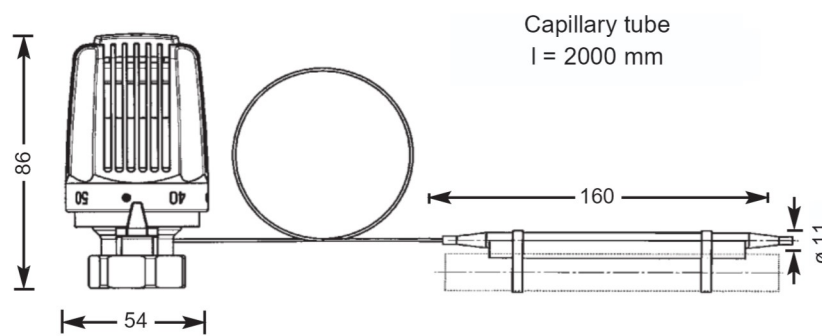
Temperature controller with contact sensor

Data sheet for 7419, 7420/21 9420/9421, Issue 0922

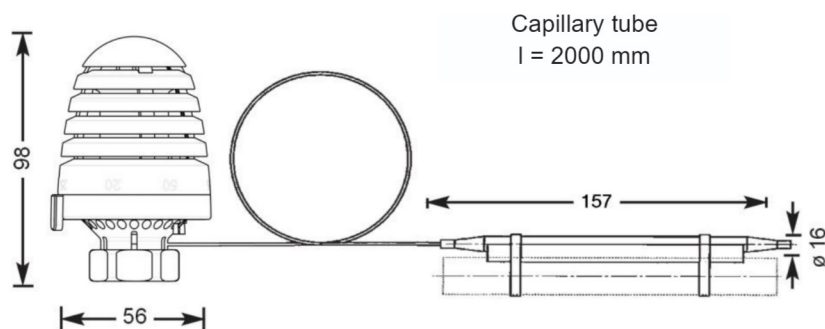
Dimension in mm



7419



7420/7421



9420/9421

☑ Models

The HERZ Thermostat with contact sensor is a proportional controller without power requirement for temperature control and/or limitation in hot water circuits and air heaters.

- 7419** HERZ Thermostat with contact sensor for surface heating and cooling, consisting of a thermostatic head with hydrosensor (liquid filled), capillary tube, pipe contact sensor and fastening material for affixing it to the pipe. M 28 x 1.5. Set point range 10–40 °C, capillary tube length 2000 mm.
- 7420** HERZ Thermostat with contact sensor for floor heating systems, consisting of a thermostatic head with hydrosensor (liquid filled), capillary tube, pipe contact sensor and fastening material for affixing it to the pipe. M 28 x 1.5. Set point range 20–50 °C, capillary tube length 2000 mm.
- 7421** HERZ Thermostat with contact sensor for boiler intake temperature control, otherwise same as 7420. M 28 x 1,5. Set point range 40–70 °C, capillary tube length 2000 mm.
- 9420** HERZ Thermostat with contact sensor, consisting of thermostat with liquid sensor (hydrosensor), capillary tube, set point range 20–50 °C. Capillary tube length: approx. 2000 mm. M 30 x 1.5
- 9421** HERZ Thermostat with contact sensor, consisting of thermostat with liquid sensor (hydrosensor), capillary tube, set point range 40–70 °C, incl. 2x limiting pins. Capillary tube length: approx. 500 mm. M 30 x 1.5

☑ Order numbers. Operating data

Article number	7419	7420 / 9420	7421 / 9421
Handwheel colour	white	white	white
Order numbers	1 7419 00	1 7420 06 1 9420 88	1 7421 00 1 9421 98
Set value range	10 - 40 °C	20 - 50 °C	40 - 70 °C
Maximum differential pressure	0,75 bar 0.2 bars for low-noise operation		
Hysteresis	0,3 K		
Effect of heating medium temperature	0,15 K / 10 K		
Excess temperature safety function	10 K above max. scale value		
Max. storage temperature	50 °C		

☑ Fields of application

For installation on all HERZ valves suitable for thermostatic operation. For article and order numbers, dimensions and forms of delivery see the respective product standard sheets.

☑ Mode of operation

In the HERZ thermostat with contact sensor, the change of volume of the hydrosensor liquid filling is transmitted through a capillary tube into a system of bellows which on its part actuates the valve spindle. The thermostatic valve (control element) is closed when the pipe temperature rises. The temperature scale is directly on the handwheel, temperature adjustment is performed by means of this scale.

☑ Setting options, handwheel scale, maximum setting for 9420

By setting the scale marks opposite the pointer it is possible to achieved approximately the following temperatures in the room. Deviations of a few degrees of temperature (K) are possible according to the mode of installation and the design of the heating system.

Mark	1	2	3	4	5	6	7
~ °C	20	25	30	35	40	45	50

☑ Setting options, handwheel scale, maximum setting for 9421

Mark	1	2	3	4	5	6	7
~ °C	40	45	50	55	60	65	70

☑ Thermostatic head installation

1. Unscrew screw cap or handwheel from the thermostatic valve body.
2. Open thermostatic head completely, place union nut on the valve. In doing so, turn the thermostatic head in such a way that the handwheel scale can be read easily.
3. Tighten union nut moderately with 30 mm open-end-wrench.
4. Test for proper functioning by turning the handwheel and set the thermostat to the desired temperature.

☑ Contact sensor

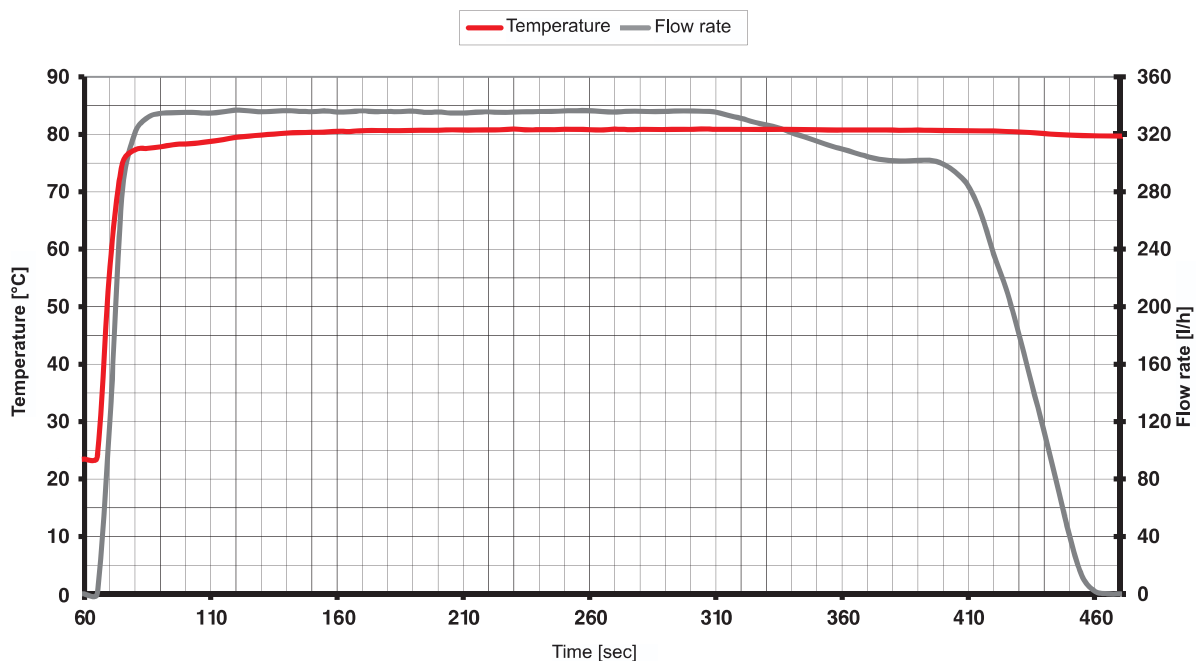
The contract sensor and its base are attached to the pipe by means of clips; however, it can also be placed in a submersible sleeve.
Flawless heat transmission must be ensured.

☑ Theft protection

To prevent theft retaining clips are available that are installed over the fastening nut and which can only be opened with a special key.

☑ Accessories

- 1 **6640 00** - Universal key, for opening of theft protection **9552**
- 1 **9552 03** - Theft protection: Snap clips, opening with universal key 1 **6640 00**, for HERZ thermostatic heads series 7000 and 9000 with threaded connection M 28 x 1,5.
- 1 **9552 98** - Theft protection „H“: Snap clips, opening with universal key 1 **6640 00**, for HERZ thermostatic heads series 7000 and 9000 with threaded connection M 30 x 1,5.
- 1 **6313 01** - Brass insertion pocket with screw-in thread 1/2.



☑ Brass

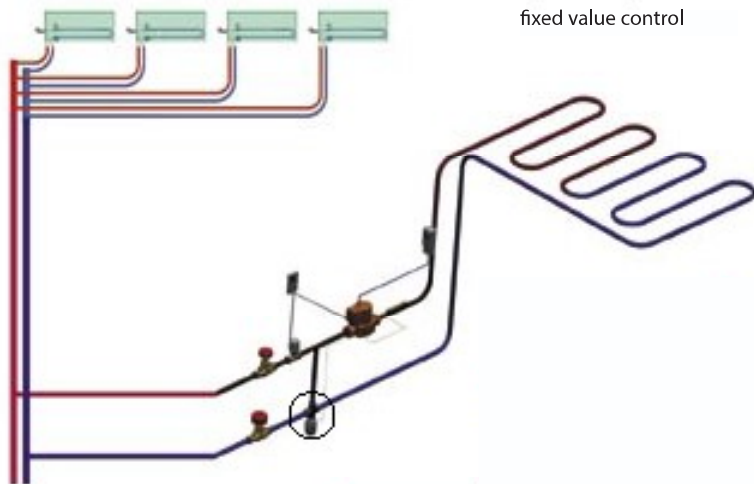
Pursuant to Article 33 of the REACH Regulation (EC No. 1907/2006), we are obliged to point out that the material lead is listed on the SVHC list and that all brass components manufactured in our products exceed 0.1% (w / w) lead (CAS: 7439-92-1 / EINECS: 231-100-4). Since lead is a component part of an alloy, actual exposure is not possible and therefore no additional information on safe use is necessary.

☑ Disposal

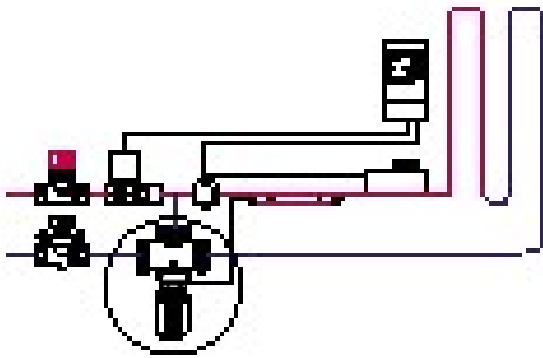
The disposal of HERZ thermostatic heads must not endanger the health or the environment. National legal regulations for proper disposal of the HERZ thermostatic heads have to be followed.

Please note: All specifications and information within this document are reflecting the information available at the time of going to print and meant for informational purpose only. Herz Armaturen reserves the right to modify and change products as well as its technical specifications and/or its function according to technological progress and requirements. All diagrams are indicative in nature and do not to be complete. It is understood that all images of Herz products are symbolic representations and therefore may visually differ from the actual product. Colours may differ due to printing technology used. In case of any further questions don't hesitate to contact your closest HERZ Branch-Office.

☑ Examples for application



fixed value control



Boilers for portable water
The sensorelement can be used
with an insertion pocket, order
number 1 6313 01.

